

PATENT  
Attorney Docket No. 05725.1274-00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: )  
Mireille MAUBRU et al. ) Group Art Unit: 1619  
Application No.: 10/796,082 ) Examiner: Jyothsna A. VENKAT  
Filed: March 10, 2004 )  
For: COSMETIC COMPOSITIONS . . . ) Confirmation No.: 2687  
COMPRISING AT LEAST ONE )  
CROSSLINKED COPOLYMER, AT )  
LEAST ONE INSOLUBLE )  
MINERAL PARTICLE AND AT )  
LEAST ONE POLYMER, AND )  
USES THEREOF )

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

DECLARATION UNDER 37 C.F.R. § 1.132

I, Khenniche Samira, do hereby make the following declaration:

1. I am a French Citizen, residing at 40-42 rue chance Milly 92110 Clichy.
2. I have been awarded a degree in Ph.D. from Université Claude Bernard Lyon 1, and am a Doctor in Chemistry.
3. I have been employed by L'ORÉAL since October 2006 and I am presently a research engineer of the applied research unit at L'ORÉAL.
4. Given my education and experience, particularly in the area of chemistry, I consider myself able to provide the following testimony based on experiments conducted by me or under my direct supervision.

## I. TESTING

5. Comparative testing was performed between comparative Composition A and inventive Compositions B and C in order to demonstrate the resulting differences in softness, smoothness, suppleness in both wet and dry hair between the compositions.

6. Composition A (comparative) and Compositions B and C (inventive) were prepared according to Table 1 below. The compositions were identical except that the water-insoluble solid mineral particle in Composition A (comparative) is mica-TiO<sub>2</sub>. The water-insoluble solid mineral particles in Composition B (inventive) and Composition C (inventive) are calcium carbonate and clay, respectively.

TABLE 1

	Ingredient	COMPARATIVE Composition A	INVENTIVE Composition B	INVENTIVE Composition C
Part A	Deionized water	14.45	14.45	14.45
	Acrylates Crosspolymer (30%) AQUA SF1 from NOVEON	5	5	5
	Cocoyl Isethionate (and) Sodium Lauroamphoacetate (and) Sodium Methyl Cocoyl taurate (and) Sodium Xylene Sulfonate (38%)	45	45	45
	Sodium Laureth Sulfate (2 mole, 27%)	15	15	15
	Deionized water	4.85	4.85	4.85
Part B	Sodium Hydroxyde (18%) PEI-35 (Lupasol G35 BASF - 50% am)	0.05	0.05	0.05
	Citric acid (50%)	0.30	0.30	0.30
	Sodium Cocoamphoacetate (37%)	0.05	0.05	0.05
Part C	Sodium Cocoamphoacetate (37%)	5	5	5

	Polyquaternium-7	2	2	2
	Dimethiconol (and) TEA-Dodecylbenzenesulfonate	4	4	4
Part D	Deionized water	2.5	2.5	2.5
	mica-TiO2	0.2		
	CaCO3		0.2*	
	Clay			0.2
Part E	Fragrance	0.5	0.5	0.5
	Phenoxyethanol (and)			
	Methylparaben (and)	0.5	0.5	0.5
	Butylparaben (and)			
	Ethylparaben (and)			
	Propylparaben			
	Citric acid (50%)	0.6	0.6	0.6

\*The particles are composed of substantial pure (i.e., about 100%) calcium carbonate.

7. At the time of use, parts A to E for each of Compositions A-C were mixed to form Compositions A-C in separate bowls. Then, one gram of each Composition was applied to its own 2.7 gram, wet, sensitized hair lock. The locks were rolled and kneaded by hand and then rinsed with water (15 passages between digits through water). After evaluation of the wet hair, the locks were dried and evaluated again.

## II. SENSORY EVALUATION

8. Six experts evaluated the cosmetic properties of the hair of the locks. The wet hair was evaluated for softness, smoothness, and suppleness. After the locks were dried, the hair was again evaluated for softness, smoothness, and suppleness. The results were ranked from 0-5 with zero representing "not good" and five representing "excellent." Tables 2 and 3 show the results of the evaluations. The statistical significance was analyzed using a Dunnett test.

TABLE 2

COMPARATIVE Composition A		INVENTIVE Composition B	p-value
Wet Hair			
Softness	2	3	0.331
Smoothness (feel)	2.25	3.33	0.034 (difference significant to threshold < 10%)
Suppleness	2.17	3.17	0.071 (difference significant to threshold < 10%)
Dried Hair			
Softness	3	3.83	0.134
Smoothness (touch)	2.25	3.33	0.004 (difference significant to threshold < 10%)
Suppleness	2.75	3.33	0.311

TABLE 3

COMPARATIVE Composition A		INVENTIVE Composition C	p-value
Wet Hair			
Softness	2	3.25	0.15
Smoothness (feel)	2.25	3.25	0.05 (difference significant to threshold < 10%)
Suppleness	2.17	3.58	0.011 (difference significant to threshold < 10%)
Dried Hair			
Softness	3	3.67	0.252
Smoothness (touch)	2.25	3.58	0.001 (difference significant to threshold < 10%)
Suppleness	2.75	3.67	0.083 (difference significant to threshold < 10%)

III. CONCLUSION

9. From the above results, it is clear that, taken as a whole, there is a marked improvement of the cosmetic properties in the hair treated with inventive Composition B and inventive Composition C.

10. Based on my education and experience, one of ordinary skill in the art would not have expected that a composition containing calcium carbonate or clay, according to the present claims, instead of mica-TiO<sub>2</sub>, would result in the marked improvement of the cosmetic properties.

11. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Dated: November 13<sup>th</sup> 2009

By: KHENNICHE  
Khenniche Samira